Dell Latitude ST
Owner's Manual

Regulatory Model: T02G
Regulatory Type: T02G001

Notes, Cautions, and Warnings

NOTE: A NOTE indicates important information that helps you make better use of your computer.

CAUTION: A CAUTION indicates either potential damage to hardware or loss of data and tells you how to avoid the problem.

WARNING: A WARNING indicates a potential for property damage, personal injury, or death.

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Contents

1

Working on Your Computer

Before Working Inside Your Computer

Use the following safety guidelines to help protect your computer from potential damage and to help to ensure your personal safety. Unless otherwise noted, each procedure included in this document assumes that the following conditions exist:

- You have performed the steps in Working on Your Computer.
- You have read the safety information that shipped with your computer.
- A component can be replaced or--if purchased separately--installed by performing the removal procedure in reverse order.

WARNING: Before working inside your computer, read the safety information that shipped with your computer. For additional safety best practices information, see the Regulatory Compliance Homepage at www.dell.com/regulatory_compliance.

CAUTION: Many repairs may only be done by a certified service technician. You should only perform troubleshooting and simple repairs as authorized in your product documentation, or as directed by the online or telephone service and support team. Damage due to servicing that is not authorized by Dell is not covered by your warranty. Read and follow the safety instructions that came with the product.

CAUTION: To avoid electrostatic discharge, ground yourself by using a wrist grounding strap or by periodically touching an unpainted metal surface, such as a connector on the back of the computer.

CAUTION: Handle components and cards with care. Do not touch the components or contacts on a card. Hold a card by its edges or by its metal mounting bracket. Hold a component such as a processor by its edges, not by its pins.

CAUTION: When you disconnect a cable, pull on its connector or on its pull-tab, not on the cable itself. Some cables have connectors with locking tabs; if you are disconnecting this type of cable, press in on the locking tabs before you disconnect the cable. As you pull connectors apart, keep them evenly aligned to avoid bending any connector pins. Also, before you connect a cable, ensure that both connectors are correctly oriented and aligned.

NOTE: The color of your computer and certain components may appear differently than shown in this document.

To avoid damaging your computer, perform the following steps before you begin working inside the computer.

1. Ensure that your work surface is flat and clean to prevent the computer cover from being scratched.
2. Turn off your computer (see Turning Off Your Computer).
3. If the computer is connected to a docking device (docked) such as the optional Media Base or Battery Slice, undock it.

CAUTION: To disconnect a network cable, first unplug the cable from your computer and then unplug the cable from the network device.

4. Disconnect your computer and all attached devices from their electrical outlets.

Recommended Tools

The procedures in this document may require the following tools:

- Small flat-blade screwdriver
- #0 Phillips screwdriver
- #1 Phillips screwdriver
- Small plastic scribe
- Flash BIOS update program CD

Turning Off Your Computer

CAUTION: To avoid losing data, save and close all open files and exit all open programs before you turn off your computer.

1. Shut down the operating system.
2. Ensure that the computer and all attached devices are turned off. If your computer and attached devices did not automatically turn off when you shut down your operating system, press and hold the power button for about 4 seconds to turn them off.

After Working Inside Your Computer

After you complete any replacement procedure, ensure you connect any external devices, cards, and cables before turning on your computer.

CAUTION: To avoid damage to the computer, use only the battery designed for this particular Dell computer. Do not use batteries designed for other Dell computers.

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Overview

The Dell Latitude ST features a Windows 7 operating system in a 10" touch-screen slate, combining the mobility of a tablet with the manageability, security and compatibility of a laptop.

The Latitude ST , opens a new category of tablet platforms that address the unique needs of business users like:

- Business class security, manageability and virtualization support
- Intel Atom CPU and full multi-touch capabilities with pen input for annotation
- Unique offerings for Healthcare, Education, and Finance Microsoft Windows 7 Home Premium and Professional

The familiar operating system interface allows you to develop and edit business documents on the go with enterprise-class security features. The convenient size, weight and multi-touch features of the tablet allow mobility and ease of use of enterprise applications. Latitude ST can be configured with a full suite of Windows Office business applications. Additionally you can connect your tablet to your mouse, printer, HD display and wired network via the optional docking station. Taking notes on the Latitude ST is easy using the N-Trig stylus or gesture-enabled multi-touch screen. It also comes built in with a front-facing 720 pixel camera and a 5.0 MP back-facing camera. Latitude ST is designed to be durable with the rubberized bumper that helps protect against accidental drops, while Corning Gorilla Glass helps ensure that your screen can withstand the unexpected.

The Dell Latitude ST is built to be thin and light to match the mobility needs of executives, sales managers, doctors, and students alike. This allows the product to function as a primary system during short business trips, sales calls, etc. It was designed from the ground up to be managed similarly to how notebooks, desktops and workstations are managed today.

Interface

The following table lists the Latitude ST interfaces:

Table 1. Latitude ST Interfaces

Feature	Description
Touch	Ability to use finger as an input device.
Windows Journal	Native note-taking application which takes input directly from pen or touch.
Snipping Tool	Tool used to capture portions of visual data (documents, pictures, and so on) via pen or touch.
Flicks	Gesture activated shortcuts for common tasks.
Check Boxes	Visual identifier in folders for selecting files.
Cursor Feedback	Visual indicator for tap location.
Tablet Input Panel	Tool used to input data via pen or touch that takes the place of a keyboard.
Input Device-Sensitive Tools	Tablet Input Panel and icon change size according to pen or touch being used.
Tablet Cursor	Special Tablet cursor used for Tablet PC functions as opposed to a standard mouse pointer.
Touch Widget	Separate tool that appears in Touch Mode used for right-clicking purposes.

Feature	Description
Cursor Feedback	Ability to see if the target has been hit by using visual feedback for success.

Pen Overview

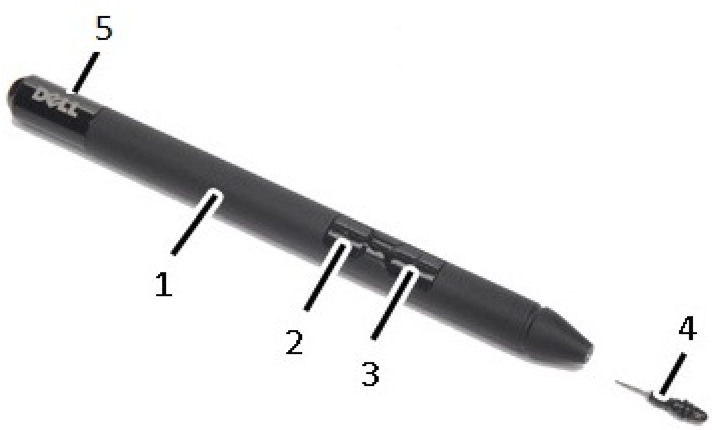
The Latitude ST uses several input devices. The standard external USB keyboard and mouse are present, plus you can opt for the electrostatic pen or just use your finger as an input device.

The Latitude ST uses a specifically designed electrostatic pen or stylus for use in tablet PC mode. Instead of relying on battery power, the energy source for the stylus is magnetic energy produced by the excitation coil built into the digitizer itself. The signal from the coil is picked up by the stylus and triggers the stylus to transmit an electric field.



The transmitted electric field is sensed by a matrix of conductive lines on the slate. The accurate stylus position is determined using the low amplitude signals received on the vertical and horizontal conductors. Thus an appropriate signal is transferred to the digitizer's on-board processor.

Pen Information



1. Pen
2. Eraser pen button
3. Right-click pen button
4. Pen tip
5. Removable cap to replace the battery

Calibrating The Pen

The pen can function at the default calibration or at a calibration set by you or by another user. It is recommended that you use the pen only while it is calibrated to your personal calibration settings. Calibration optimizes pen performance for each user.

1. Open **Control Panel**.
2. Double-click **Tablet PC Settings**.
3. On the Tablet PC Settings window, click **Calibrate**.
4. On the Calibrate pen or touch input screens, select **Pen input**.

Removing / Inserting the Stylus Battery and Pen Tip



To remove/insert the battery, un-tighten the screw cap. The battery with '+' sign should be inserted into the stylus first.

To remove the pen tip, hold the pen tip and pull it out from the stylus. Install a new pen tip on the stylus pen head.

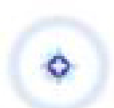
Electronic Pen Usage

The Latitude ST uses several input devices. The standard external USB keyboard and mouse are present, plus you can opt for the electrostatic pen or just use your finger as an input device.

Using the Pen as a Mouse

You can use the pen the same way you use a mouse or touch pad with a notebook computer. Holding the pen near the display makes a small cursor appear. Moving the pen moves the cursor. The following table describes how to use the pen.

Table 2. Electrostatic Pen Usage

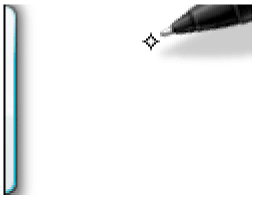
Appearance	Action	Function
	Gently tap the pen tip on the screen of your Tablet PC.	Same as a single-click on a mouse.
	Gently tap the pen tip twice in quick succession on the screen of your Tablet PC.	Same as a double-click on a mouse.
	Touch the pen on the screen and hold it in place momentarily until Windows draws a complete circle around the cursor.	Same as a right-click on a mouse.

Using the Pen as a Pen

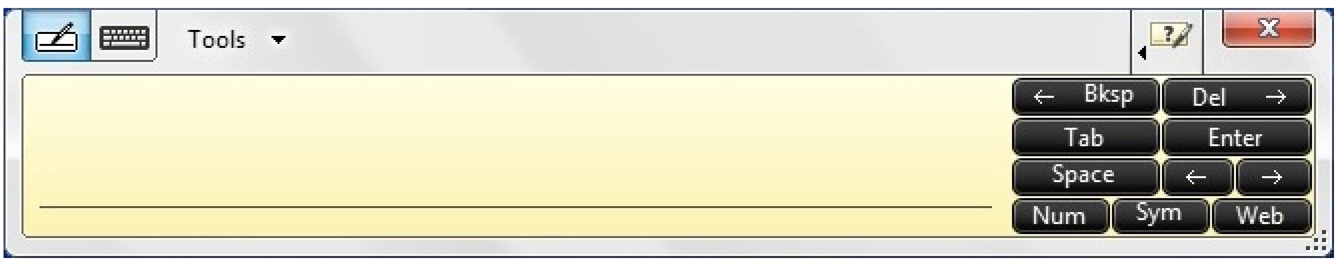
The handwriting recognition software makes it easy to enter text into your applications with the pen. Some applications, such as Windows Journal, allow you to write with the pen directly into the application window.

Tablet PC Input Panel

When an application does not directly support pen input, you can use the **Tablet PC Input Panel** to enter text into your application. If you tap in an editable area, the Tablet PC Input Panel icon appears. Tapping the icon makes the Input Panel slide out from the edge of the display.



You can move the **Input Panel** tab by dragging it up or down along the edge of the screen. Then, when you tap it, the Input Panel opens at the same horizontal location on the screen that the tab appears.



Working With Files

You can open, delete, or move many files or folders at one time by selecting multiple items from a list. Using a tablet pen, hover over one item at a time and select the check box that appears to the left of each item.

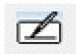
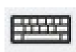
To turn check boxes on:

1. Open **Control Panel**.
2. Go to **Folder options**.
3. Click **View**.
4. Under **Advanced settings** , select the **Use check boxes to select items** check box, and then click **OK**.

Entering Text

You can use handwriting recognition or the touch keyboard to enter text.

Table 3. Input Panel Icons

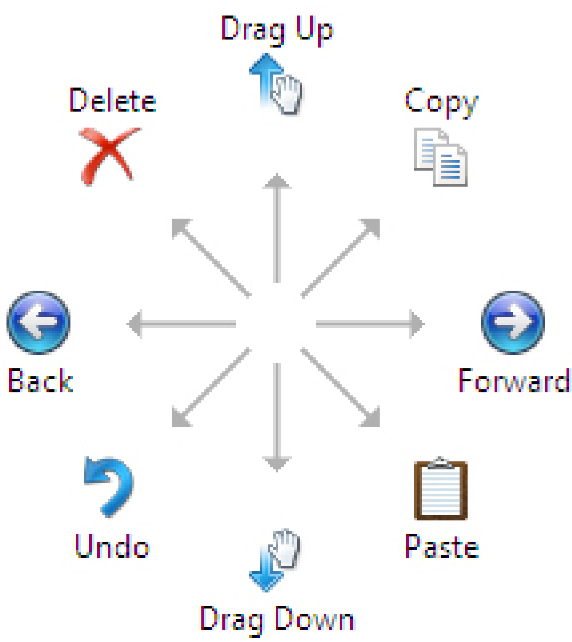
Icon	Name	Function
	Handwriting recognition	The writing pad and character pad convert handwriting into typed text. You can write continuously on the writing pad, like writing on a piece of lined paper. Use the character pad to enter one character at a time. The character pad converts your handwriting to typed text, one letter, number or symbol at a time, but does not take the context of the full word into account and does not take advantage of the handwriting dictionary. To switch to the character pad in Input Panel, tap **Tools**, and then select **Write character by character**.
	Touch keyboard	The touch keyboard is like a standard keyboard, but you enter text by tapping the keys with your tablet pen or finger.

The writing pad and the character pad have a number pad, a symbol pad, and web quick keys to help you quickly and accurately enter these types of text. These quick keys are hidden when you start to write, but appear after you insert or delete your writing.

By default, The Input Panel automatically switches to the touch keyboard when you place the insertion point in a box for entering a password.

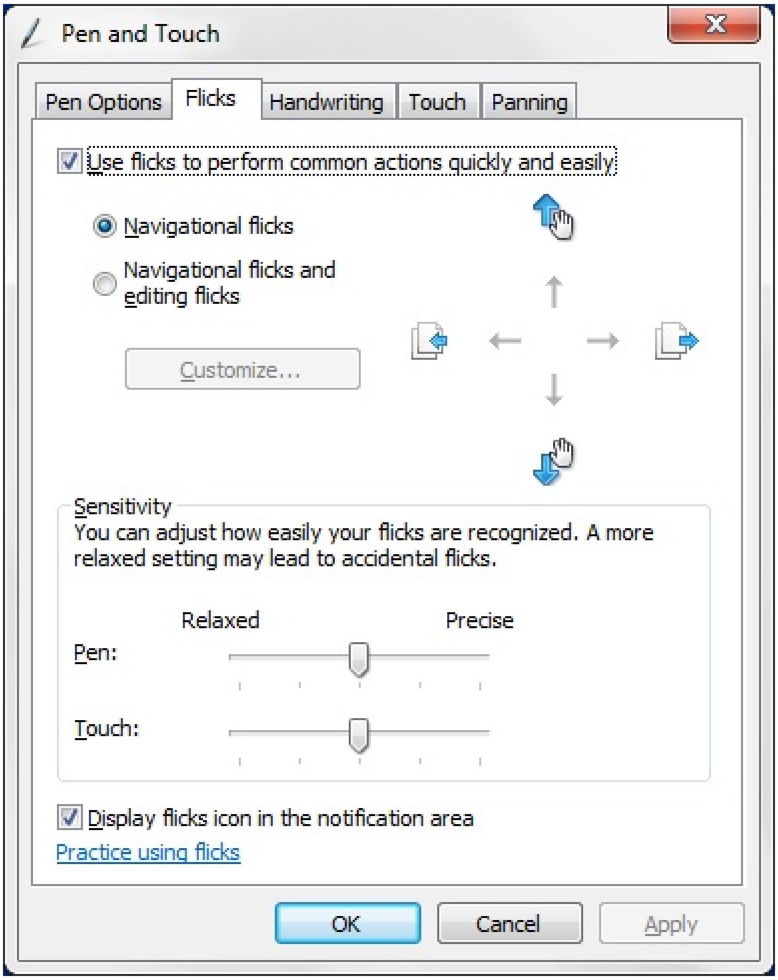
Pen Flicks

Pen flicks enable you to use the pen to perform actions that normally require a keyboard, such as pressing <Page Up> or using the directional arrow keys. Pen flicks are quick, directional gestures. You simply quickly draw a short line in one of eight directions. When a pen flick is recognized, the Tablet PC performs the action assigned.



The following image below depicts the default pen flick settings.

These can be customized by going to **Start** → > **Control Panel** → **Pen and Touch** and clicking on the **Flicks** tab.



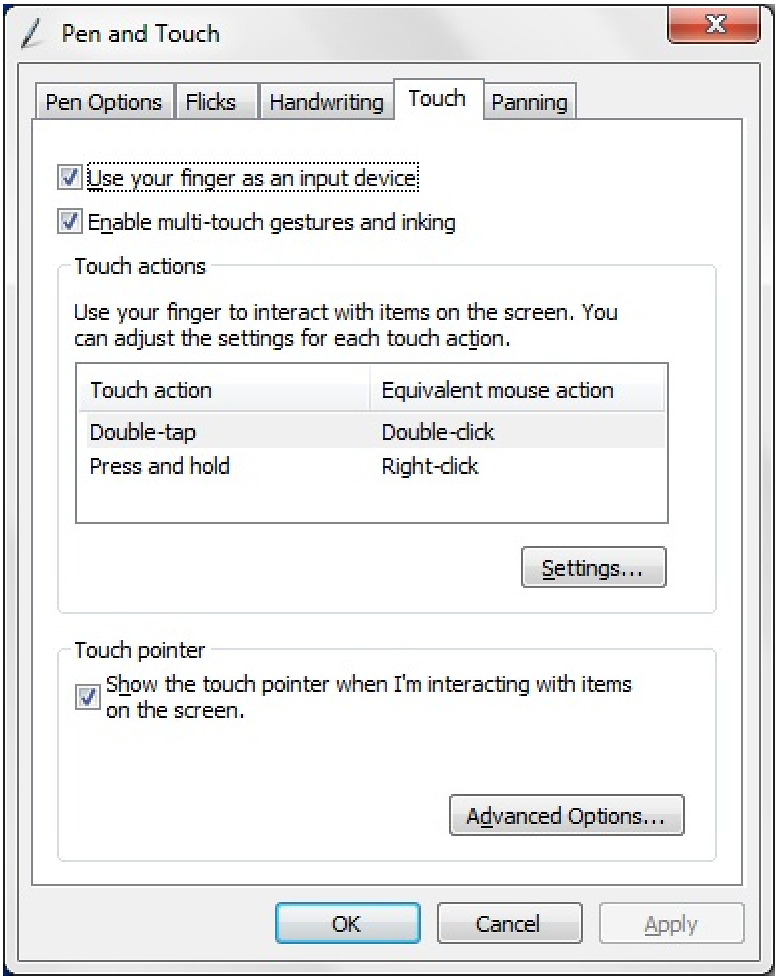
Touch Usage

One of the key advantages of the Tablet PC is the ability to easily switch from pen input to touch input.



When you use **Touch Mode** , a translucent image of a computer mouse, called the touch pointer, floats beneath your finger. The touch pointer has left and right mouse buttons that you can tap with your finger. You use the area beneath the buttons to drag the touch pointer.

To show the touch pointer, go to **Start** → **Control Panel** → **Pen and Touch** and clicking on the **Touch** tab. Then at the **Touch Pointer** section, check the option **Show the touch pointer when I'm interacting with items on the screen.**



Docking Station

The docking station is designed for Latitude ST. The docking station can be purchased separately from **dell.com**. For more information, see the docking station setup guide available on **support.dell.com**.



Figure 1. Docking Station Front View

1. Dock Connector
2. Power LED



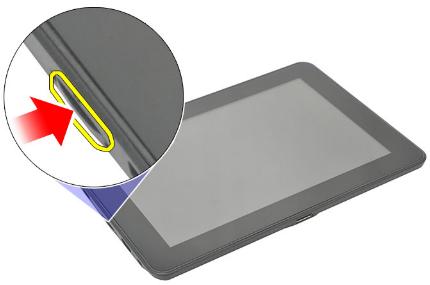
Figure 2. Docking Station Back View

1. AC Adapter Connector
2. USB 2.0 Connector (1)
3. USB 2.0 Connector (2)
4. Network Connector (RJ45)
5. HDMI Connector
6. Audio Connector

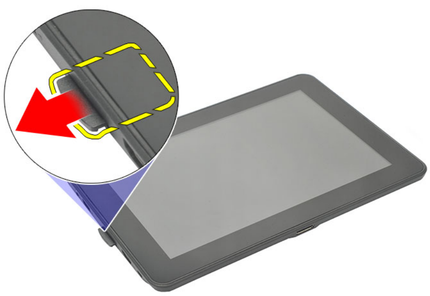
3

Removing The SD Memory Card

1. Follow the procedures in Before Working On Your Computer.
2. Press in on the SD memory card to release it from the computer.



3. Slide the SD memory card out of the computer.



Installing The SD Memory Card

1. Push the memory card into the compartment until it clicks into place.
2. Follow the procedures in After Working Inside Your Computer.

4

Removing The Digitizer Pen

1. Follow the procedures in Before Working On Your Computer.
2. Press in on the digitizer pen to release it from the computer.



3. Pull the digitizer pen out of the computer.



Installing The Digitizer Pen

1. Push the digitizer pen into the compartment until it clicks into place.
2. Follow the procedures in After Working Inside Your Computer.

5

Removing The Label Door

1. Follow the procedures in Before Working On Your Computer.
2. Press the release latch that secures the label door.



3. Lift up the label door diagonally and remove it from the computer.



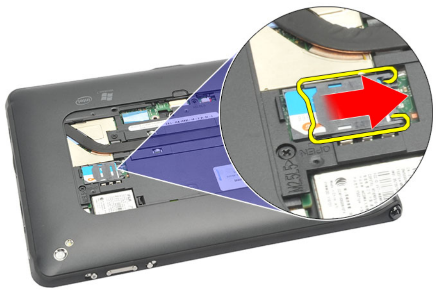
Installing The Label Door

1. Place the label door diagonally and align it with the securing clips on the edges.
2. Push the edges of the label door until it clicks into place.
3. Follow the procedures in After Working Inside Your Computer.

6

Removing The SIM Card

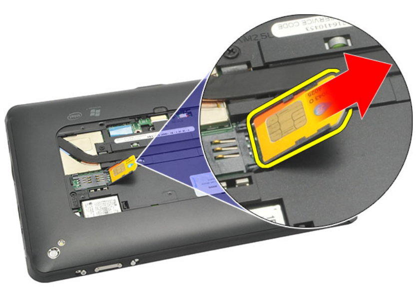
1. Follow the procedures in Before Working On Your Computer.
2. Remove the label door.
3. Slide the SIM card holder to unlock the SIM card slot.



4. Flip the SIM card holder in an upward direction.



5. Pull the SIM card out of the SIM card holder and remove it from the computer.



NOTE: Close the SIM card holder after the SIM card has been removed from the computer.

Installing The SIM Card

1. Push the SIM card into the SIM card slot until it clicks into place.
2. Install the label door.
3. Follow the procedures in After Working Inside Your Computer.

7

Removing The Bottom Cover

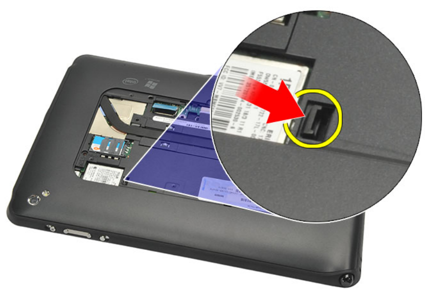
1. Follow the procedures in Before Working On Your Computer.
2. Remove the label door.

NOTE: Remove the stylus pen and the dummy SD card to prevent any damage to the computer.

3. Remove the screws that secure the bottom cover to the computer.



4. Press on the latch to release the top section of the bottom cover.



5. Pry and release the tabs that secure the bottom cover by following the arrow sequence in the diagram.



6. Remove the bottom cover from the computer.

Installing The Bottom Cover

1. Attach the bottom cover to the computer.
2. Push the edges of the bottom cover into the securing clips until they are fully engaged.
3. Tighten the screws that secure the bottom cover.
4. Install the label door.
5. Follow the procedures in After Working Inside Your Computer.

8

Removing The Battery

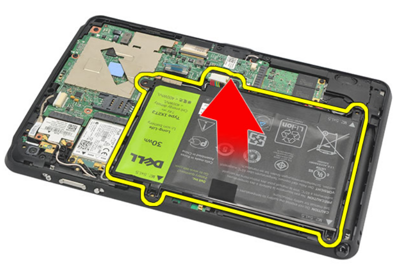
1. Follow the procedures in Before Working On Your Computer.
2. Remove the label door.
3. Remove the bottom cover.
4. Disconnect the battery cable.



5. Remove the screws that secure the battery to the computer.



6. Lift up the battery and remove it from the computer.



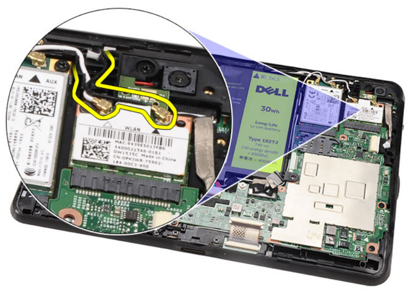
Installing The Battery

1. Place the battery in the battery compartment.
2. Tighten the screws that secure the battery.
3. Connect the battery cable.
4. Install the bottom cover.
5. Install the label door.
6. Follow the procedures in After Working Inside Your Computer.

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Removing The Wireless Local Area Network (WLAN) Card

1. Follow the procedures in Before Working On Your Computer.
2. Remove the label door.
3. Remove the bottom cover.
4. Remove the battery.
5. Disconnect the antenna connected to the WLAN card.



6. Remove the screw that secures the WLAN card.



7. Remove the WLAN card from the computer.



Installing The Wireless Local Area Network (WLAN) Card

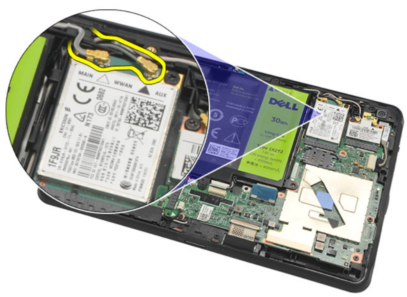
1. Slide the WLAN card into its slot.
2. Tighten the screws that secure the WLAN card in place.
3. Connect the antennas according to the color code on the WLAN card.
4. Install the battery.
5. Install the bottom cover.
6. Install the label door.
7. Follow the procedures in After Working Inside Your Computer.
8. Optionally if the Latitude ST unit is shipped from the factory without a LAN driver and the driver is installed manually, you will be prompted to turn on the WLAN. The following steps need to be performed to successfully install the WLAN card.
   a) Connect a USB keyboard to the computer and restart the computer.
   b) Press the <F2> key at the Dell logo to "Enter Setup".
   c) Select <F9> to load defaults.
   d) Select <F10> to Save settings and Exit.

      WLAN will connect automatically after windows starts up.

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Removing The Wireless Wide Area Network (WWAN) Card

1. Follow the procedures in Before Working On Your Computer.
2. Remove the label door.
3. Remove the bottom cover.
4. Remove the battery.
5. Disconnect the antenna connected to the WWAN card.



6. Remove the screw that secures the WWAN card.



7. Remove the WWAN card from the computer.



Installing The Wireless Wide Area Network (WWAN) Card

1. Slide the Wireless Wide Area Network (WWAN) card into its slot.
2. Tighten the screw securing the WWAN card in place.
3. Connect the antennas according to the color code on the WWAN card.
4. Install the battery.
5. Install the bottom cover.
6. Install the label door.
7. Follow the procedures in After Working Inside Your Computer.

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Removing The Internal Storage Device (Solid State Drive)

1. Follow the procedures in Before Working On Your Computer.
2. Remove the label door.
3. Remove the bottom cover.
4. Disconnect the battery cable.
5. Remove the screw that secures the solid state drive to the computer.



6. Lift the solid state drive diagonally and remove it from the computer.



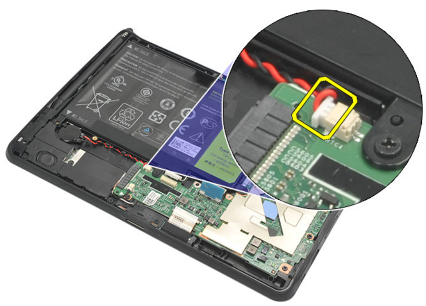
Installing The Internal Storage Device (Solid State Drive)

1. Insert the internal storage device (solid state drive) into its slot.
2. Tighten the screw that secures the internal storage device connection.
3. Connect the battery cable.
4. Install the bottom cover.
5. Install the label door.
6. Follow the procedures in After Working Inside Your Computer.

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Removing The Coin-Cell Battery

1. Follow the procedures in Before Working On Your Computer.
2. Remove the label door.
3. Remove the bottom cover.
4. Remove the battery.
5. Remove the Internal Storage Drive.
6. Disconnect the coin-cell battery cable.



7. Release the coin-cell battery cable and remove the coin-cell battery from the computer.



Installing The Coin-Cell Battery

1. Place the coin-cell battery in its compartment and route the coin-cell battery cable.
2. Tighten the screws that secure the internal storage device connection.
3. Install the internal storage device.
4. Install the battery.
5. Install the bottom cover.
6. Install the label door.
7. Follow the procedures in After Working Inside Your Computer.

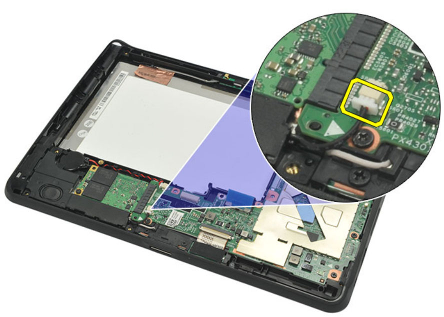
13

Removing The Speaker

1. Follow the procedures in Before Working On Your Computer.
2. Remove the label door.
3. Remove the bottom cover.
4. Remove the battery.
5. Remove the screws that secure the speaker to the computer.



6. Disconnect the speaker cable.



7. Lift up the speaker and remove it from the computer.



Installing The Speaker

1. Connect the speaker cable to the system board.
2. Tighten the screws that secure the speaker.
3. Install the battery.
4. Install the bottom cover.
5. Install the label door.
6. Follow the procedures in After Working Inside Your Computer.

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Removing The Middle Frame Assembly

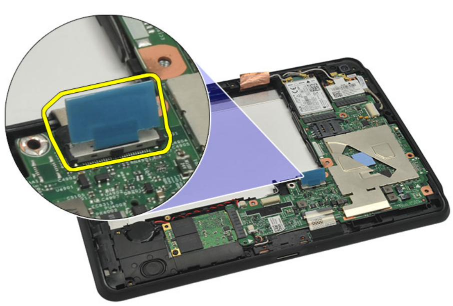
1. Follow the procedures in Before Working On Your Computer.
2. Remove the digitizer pen.
3. Remove the label door.
4. Remove the bottom cover.
5. Remove the battery.
6. Remove the screws that secure the middle frame assembly to the computer.



7. Peel away the tapes that secure the antenna to the display assembly.



8. Disconnect the display cable.



9. Pry the middle frame assembly from the display assembly and remove it from the computer.



Installing The Middle Frame Assembly

1. Attach the middle frame assembly to the computer.
2. Push the edges of the middle frame assembly into the securing clips until they are fully engaged.
3. Connect the display cable.
4. Affix the tapes that secure the antenna to the display assembly.
5. Tighten the screws that secure the middle frame assembly to the computer.
6. Install the battery.
7. Install the bottom cover.
8. Install the label door.
9. Follow the procedures in After Working Inside Your Computer.

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Removing The Camera

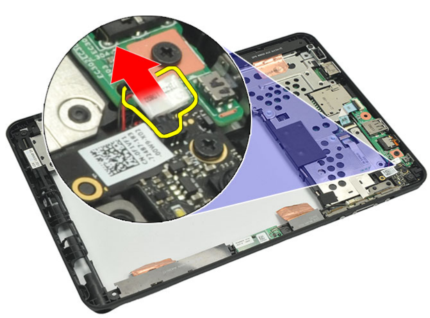
1. Follow the procedures in Before Working On Your Computer.
2. Remove the digitizer pen.
3. Remove the label door.
4. Remove the bottom cover.
5. Remove the battery.
6. Remove the middle frame assembly.
7. Disconnect the camera cable from the system board.



8. Peel the camera cable from the adhesive affixing it to the system board.



9. Flip the middle frame assembly over, and disconnect the camera LED cable.



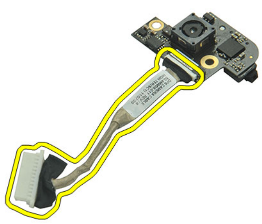
10. Remove the screw that secures the camera board to the computer.



11. Lift up the camera board and remove it from the computer.



12. Disconnect the camera cable from the camera board.



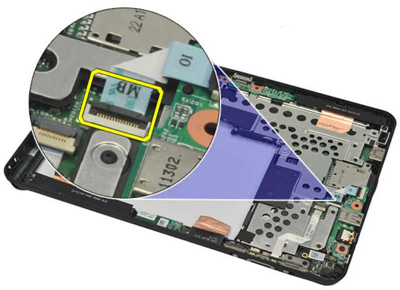
Installing The Camera

1. Connect the camera cable to the camera board.
2. Place the camera on the top edge of the display assembly.
3. Tighten the screw that secures the camera in place.
4. Turn the middle frame assembly over, and connect the camera LED cable.
5. Paste the camera cable on the adhesive affixing it to the system board.
6. Connect the camera cable to the system board.
7. Install the middle frame assembly.
8. Install the battery.
9. Install the bottom cover.
10. Install the label door.
11. Follow the procedures in After Working Inside Your Computer.

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Removing The Input/Output (I/O) Board

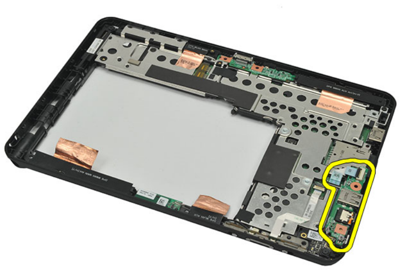
1. Follow the procedures in Before Working On Your Computer.
2. Remove the digitizer pen.
3. Remove the label door.
4. Remove the bottom cover.
5. Remove the battery.
6. Remove the middle frame assembly.
7. Disconnect the I/O board cable from the system board.



8. Remove the screw that secures the I/O board to the computer.



9. Lift up the I/O board and remove it from the computer.



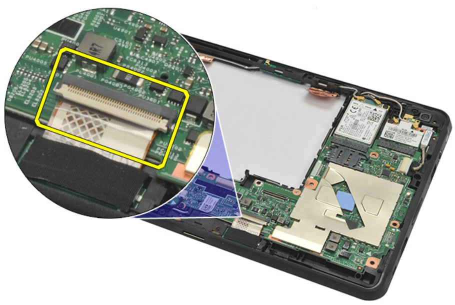
Installing The Input/Output (I/O) Board

1. Place the I/O Board on the top edge of the display assembly.
2. Tighten the screw that secures the I/O board to the computer.
3. Connect the I/O board cable to the system board.
4. Install the middle frame assembly.
5. Install the battery.
6. Install the bottom cover.
7. Install the label door.
8. Follow the procedures in After Working Inside Your Computer.

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Removing The Docking Board

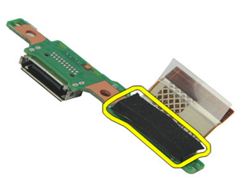
1. Follow the procedures in Before Working On Your Computer.
2. Remove the digitizer pen.
3. Remove the label door.
4. Remove the bottom cover.
5. Remove the battery.
6. Remove the middle frame assembly.
7. Disconnect the docking board cable from the system board.



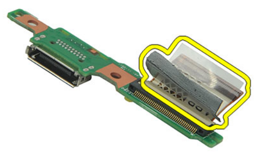
8. Turn the middle-frame assembly over, lift up and remove the docking board from the computer.



9. Peel away the tape securing the docking board.

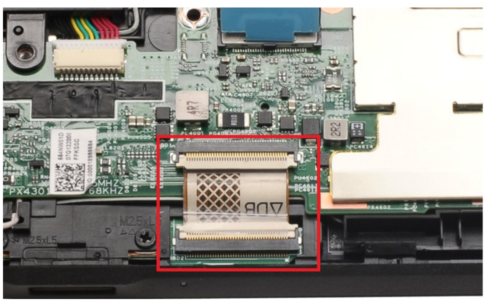


10. Lift up the securing clips and disconnect the docking board cable from the docking board.



Installing The Docking Board

1. Connect the docking board cable to the docking board and flip down the securing clips.
2. Ensure that the docking cable is connected facing upwards, the label "DB" and the arrow is pointing outwards from the system board connector. Incorrect polarity may result in the malfunction of the docking board.

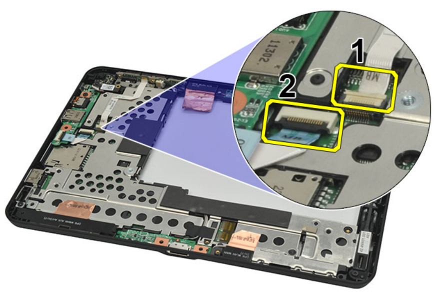


3. Paste the black tape securing the cable connector on the docking board.
4. Turn the middle frame assembly over, and connect the docking board cable to the system board.
5. Install the middle frame assembly.
6. Install the battery.
7. Install the bottom cover.
8. Install the label door.
9. Install the digitizer pen.
10. Follow the procedures in After Working Inside Your Computer.

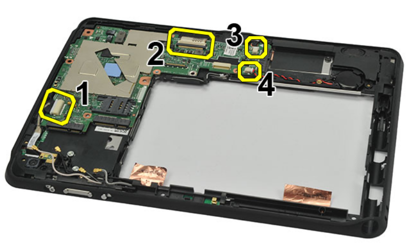
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Removing The System Board

1. Follow the procedures in Before Working On Your Computer.
2. Remove the digitizer pen.
3. Remove the SD memory card.
4. Remove the label door.
5. Remove the phone SIM.
6. Remove the bottom cover.
7. Remove the battery.
8. Remove the WLAN card.
9. Remove the WWAN card.
10. Remove the internal storage drive.
11. Remove the middle frame assembly.
12. Lift up the securing clips and disconnect the power button board cable (1) and I/O board cable (2).



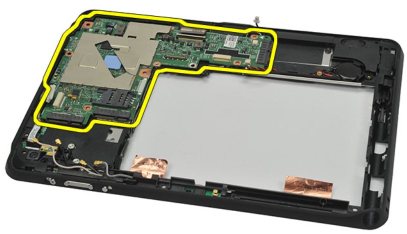
13. Turn the middle frame assembly over, and disconnect the camera cable from the system board (1), docking board cable (2), speaker cable (3), and coin-cell battery cable (4).



14. Remove the screw that secures the system board to the middle frame assembly.



15. Lift up the system board and remove it from the computer.

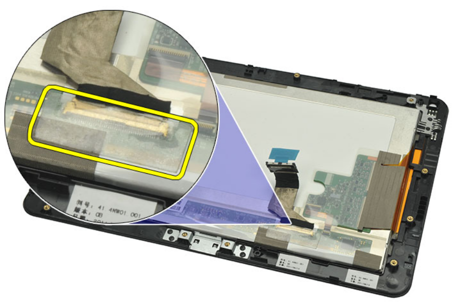


Installing The System Board

1. Tighten the screw that secures the system board to the middle frame assembly.
2. Turn the middle-frame assembly over, and connect the camera cable to the system board, docking board cable, speaker cable, and the coin-cell battery cable.
3. Connect and flip down the securing clips of the power button board cable and I/O board cable.
4. Install the middle frame assembly.
5. Install the internal storage device.
6. Install the WWAN card.
7. Install the WLAN card.
8. Install the battery.
9. Install the bottom cover.
10. Install the phone SIM card.
11. Install the label door.
12. Install the SD memory card.
13. Install the digitizer pen.
14. Follow the procedures in After Working Inside Your Computer.

Removing Low-Voltage Differential Signaling (LVDS) Cable

1. Follow the procedures in Before Working On Your Computer.
2. Remove the digitizer pen.
3. Remove the label door.
4. Remove the bottom cover.
5. Remove the battery.
6. Remove the middle frame assembly.
7. Peel open the tape securing the display cable.



8. Disconnect the display cable.



The following diagram shows the display panel assembly after all the components have been removed from the computer in the order listed above.



Installing The Low-Voltage Differential Signaling (LVDS) Cable

1. Connect the display cable to the display panel assembly.
2. Affix the tape that secures the display cable.
3. Install the middle frame assembly.
4. Install the battery.
5. Install the bottom cover.
6. Install the label door.
7. Install the digitizer pen.
8. Follow the procedures in After Working Inside Your Computer.

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System Setup

System Setup Overview

System Setup allows you to:

- change the system configuration information after you add, change, or remove any hardware in your computer.
- set or change a user-selectable option such as the user password.
- read the current amount of memory or set the type of hard drive installed.
- check battery health.

Before you use System Setup, it is recommended that you write down the System Setup screen information for future reference.

CAUTION: Unless you are an expert computer user, do not change the settings for this program. Certain changes can cause your computer to work incorrectly.

Entering System Setup

NOTE: Before entering the System Setup, you must connect a USB Keyboard to the USB port located on the left side of the computer or at the rear of the docking station if the computer is docked.

1. Turn on (or restart) your computer.
2. When the blue DELL logo is displayed, you must watch for the F2 prompt to appear.
3. Once the F2 prompt appears, press <F2> immediately.

   NOTE: The F2 prompt indicates that the keyboard has initialized. This prompt can appear very quickly, so you must watch for it to display, and then press <F2> . If you press <F2> before you are prompted, this keystroke will be lost.

4. If you wait too long and the operating system logo appears, continue to wait until you see the Microsoft Windows desktop. Then, shut down your computer and try again.

System Setup Navigation

Menu	Appears on top of the System Setup window. This field provides a menu to access the System Setup options. Press < Left Arrow > and < Right Arrow > keys to navigate. As a **Menu** option is highlighted, the **Options List** lists the options that define the hardware installed on your computer.
Options Field	Appears on the right side of **Options List** and contains information about each option listed in the **Options List** . In this field you can view information about your computer and make changes to your current settings. Press < Enter> to make changes to your current settings. Press <ESC> to return to the **Options List**. **NOTE:** Not all settings listed in the Options Field are changeable.

Help	Appears on the right side of the System Setup window and contains help information about the option selected in **Options List** .

Use the following keys to navigate through the System Setup screens:

Keystroke	Action
< F2 >	Displays information on any selected item in the System Setup.
< Esc >	Exit from current view or switch the current view to the **Exit** page in the System Setup.
< Up Arrow > or < Down Arrow >	Select an item to display.
< Left Arrow > or < Right Arrow >	Select a menu to display.
– or +	Change existing item value.
< Enter >	Select the sub menu or execute command.
< F9 >	Load setup default.
< F10 >	Save current configuration and exit System Setup.

Boot Menu

Press <F12> when the Dell logo appears to initiate a one-time boot menu with a list of the valid boot devices for the system. **Hard Drive Network Diagnostics** and **Enter Setup** options are included in this menu. The devices listed on the boot menu depend on the bootable devices in the system. This menu is useful when you are attempting to boot to a particular device or to bring up the diagnostics for the system. Using the boot menu does not make any changes to the boot order stored in the BIOS.

System Setup Options

Main

The Main tab lists out the primary hardware features of the computer. The following table defines the function of each option.

Table 4. Main Tab

Option	Function
System Time	Resets the time on the computer's internal clock.
System Date	Resets the date on the computer's internal calendar.
BIOS Version	Displays the BIOS revision.
Service Tag	Displays the service tag of your computer.
Asset Tag	Displays the asset tag of your computer.
CPU Type	Displays the type of processor.
CPU Speed	Displays the speed of the processor.
CPU ID	Displays the processor ID.
CPU Cache	Displays information about the Processor cache size

Option		Function
	L1 Cache Size	Displays the processor L1 cache size.
	L2 Cache Size	Displays the processor L2 cache size.
Fixed HDD		Displays the model number and capacity of the hard drive.
System Memory		Displays the memory in-built on the computer.
Extended Memory		Displays the memory installed on the computer.
Memory Speed		Displays the memory speed.

Advanced

The Advanced tab allows you to set various functions that affect the performance of the computer. The following table defines the function of each option and its default value.

Table 5. Advanced Tab

Option	Function	
Intel SpeedStep	Enable or disable the Intel SpeedStep feature.	Default: Enabled
Virtualization	Enable or disable the Intel Virtualization feature.	Default: Enabled
Wake on LAN	Allows you to enable LAN to wake the system from Standby.	Default: Enabled
USB Emulation	Enable or disable the USB emulation feature.	Default: Enabled
USB Wake Support	Allows USB devices to wake-up the computer from standby. This feature is enabled only when the AC adapter is connected.	Default: Disabled
Adapter Warnings	Enables or disables adapter warnings.	Default: Enabled
Charger Behavior	Specifies if the computer battery will be charged when connected to an AC power source.	Default: Disabled
Express Charge	A Dell fast charging technology.	Default: Enabled
Battery Health	Displays the current battery health.	
Miscellaneous Devices	These fields let you enable or disable various on-board devices.	

Security

The Security tab displays the security status and allows you to manage the security features of the computer.

Table 6. Security Tab

Computrace	Enable or disable the Computrace feature on your computer.
TPM support	Enable or disable TPM support.

Boot

The Boot tab allows you to change the boot sequence.

Exit

This section allows you to save, discard, and load default settings before exiting from System Setup.

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Troubleshooting

Enhanced Pre-boot System Assessment (ePSA)

The ePSA is a diagnostic utility available on your computer. This utility includes a series of tests for a computer's hardware. You can run these tests even if the computer lacks any media (hard drive, CD drive, etc.). If a ePSA-tested component fails, the system displays an error code and generates a beep code.

Features

- Graphical User Interface
- Automatic Default Operation- runs test on all devices, allowing a user to interrupt and select any device
- Checks the Master Boot Record for readiness to boot into a full OS environment
- Notebook panel test
- Video memory test
- Battery test
- Charger test
- Fan test
- Event log scan
- Multiprocessor cache test
- Configuration - displays cable connectivity, Bluetooth, WLAN and WWAN devices installation status
- System Health - displays fan, battery, thermal and connectivity indicators

Running The ePSA Diagnostic Utility

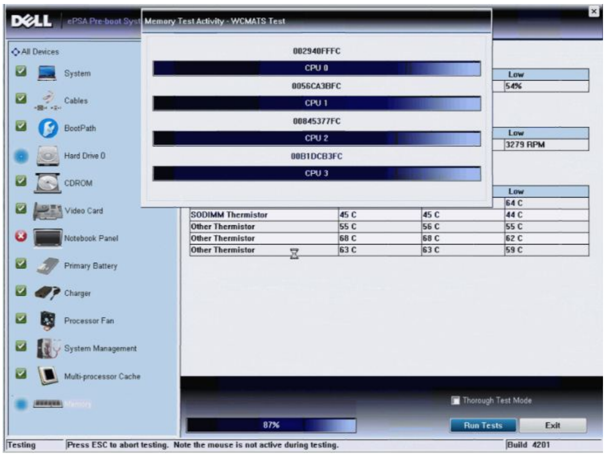
NOTE: The following steps can be used to run the ePSA diagnostic utility in DOS mode without using an external keyboard.

The pen can function at the default calibration or at a calibration set by you or by another user. It is recommended that you use the pen only while it is calibrated to your personal calibration settings. Calibration optimizes pen performance for each user.

1. Power on the system and immediately press the Power + Security (Ctrl-Alt-Del) buttons simultaneously for a second.



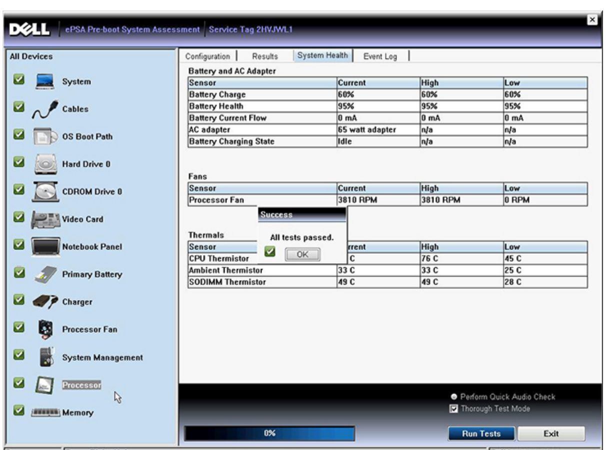
2. The computer will start up and begin running the ePSA utility automatically.



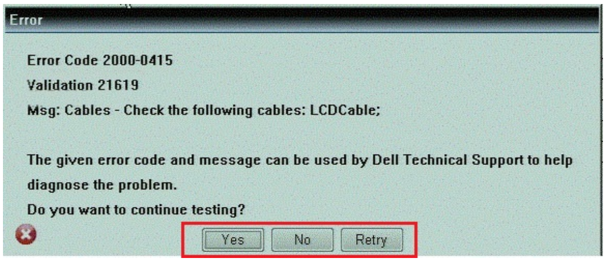
3. During the testing process, you will be prompted to answer a YES or NO question. To respond, press Volume Up = YES or Volume Down = NO.



4. Press the Security Button (Ctrl-Alt-Del) to click OK once the tests are completed.



5. The volume up and down buttons can also be used as the Tab key when switching between options.



Beep Codes

The computer may emit a series of beeps during start-up if the display cannot show errors or problems. These series of beeps, called beep codes, identify various problems. The delay between each beep is 300 ms, the delay between each set of beeps is 3 seconds, and the beep sound lasts 300 ms. After each beep and each set of beeps, the BIOS should detect if the user presses the power button. If so, BIOS will jump out from looping and execute the normal shutdown process and power system.

Code	Cause and Troubleshooting Steps
1	BIOS ROM checksum in progress or failure System board failure, covers BIOS corruption or ROM error
2	No RAM detected No memory detected
3	Chipset Error (North and South Bridge Chipset, DMA/IMR/ Timer Error) , Time-Of-Day Clock test failure , Gate A20 failure , Super I/O chip failure , Keyboard controller test failure System board failure
4	RAM Read/Write failure Memory failure
5	Real-time clock power fail CMOS battery failure
6	Video BIOS test failure Video card failure
7	CPU - cache test failure Processor failure
8	Display Display failure

LED Error Codes

Diagnostic LED codes are communicated via the Power Button LED. The Power Button LED blinks the corresponding LED codes for the corresponding fault condition. Example: For No Memory detected (LED code 2) , The Power Button LED blinks two times followed by a pause, blinks two times, pause, etc. This pattern continues until the system is powered off.

Code	Cause and Troubleshooting Steps
1	System board: BIOS ROM failure System board failure, covers BIOS corruption or ROM error
2	Memory No memory/RAM detected
3	Chipset Error (North and South Bridge Chipset, DMA/IMR/ Timer Error) , Time-Of-Day Clock test failure , Gate A20 failure , Super I/O chip failure , Keyboard controller test failure System board failure
4	RAM Read/Write failure Memory failure
5	Real-time clock power fail CMOS battery failure
6	Video BIOS test failure Video card failure
7	CPU - cache test failure Processor failure
8	Display Display failure

N-trig Digitizer Troubleshooting

The N-trig Tablet Settings applet is used to adjust several settings for the digitizer. Once the N-trig drivers are loaded, an icon appears in the system tray.

The following section provides troubleshooting steps to resolve Installation and Performance issues.

Installation Issues

Error message : "Hardware is not adequate for running this software"

Troubleshooting Steps:

1. Check if the bundle you are trying to run is for the right OS (Win7)
2. Check if the bundle you are trying to run is for the right type (32bit, 64bit)

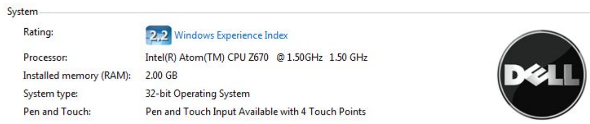
Performance issues

No multi touch functionality: N-trig Software Bundle Not Installed

Troubleshooting Steps:

1. Check if the N-trig software bundle is installed. Open **Control Panel** → **N-trig DuoSense Digitizer Settings** . If the bundle is not installed, Install the right bundle for the operating system.

2. Check the system information to see how many touch points are detected.
   - Click **Start**.
   - Right click **Computer** and select **Properties** from the menu.
   - Number of touch points will appear in the information window

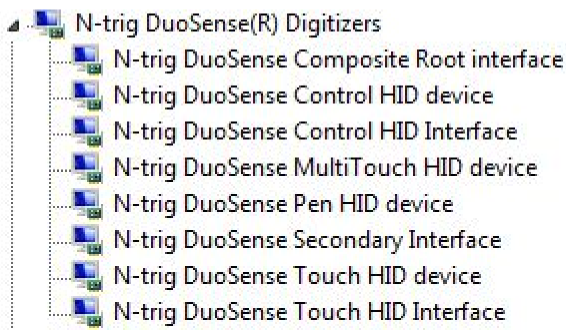


Performance issues

No multi touch functionality: N-trig Software Bundle Is Installed

Troubleshooting Steps:

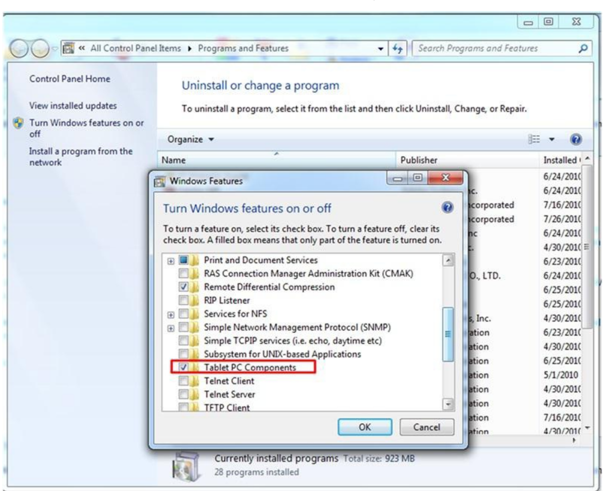
- Open the device manager and check that the Digitizer is recognized by the computer .



- If the device is recognized, uninstall the N-trig bundle and reinstall.
- If the device is not recognized, you will need to check if you see it under **Unknown Devices** and update the driver for the unknown device.

In Windows 7, verify if the Tablet PC Components check box (in Windows Features) is selected after successfully installing the N-trig software bundle.

In order to verify this, navigate to **Control Panel** → **Programs and Features** . In the **Programs and Features** window, click the **Turn Windows Features On/Off** link, located in the left sidebar, as displayed in the image below.



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Technical Specifications

NOTE: Offerings may vary by region. The following specifications are only those required by law to ship with your computer. For more information regarding the configuration of your computer, click **Start** → **Help and Support** and select the option to view information about your computer.

System Information	
Chipset	Intel SM35 Express Chipset
DRAM bus width	32-bit
Flash EPROM	SPI 16M bits

Processor	
Type	Intel Atom Z670
External bus frequency	800 MHz

Memory	
Memory capacity	2 GB
Memory type	800 MHz DDR2

Audio	
Type	basic audio grade
Controller	IDT 92HD87
Stereo conversion	24-bit (analog-to-digital and digital-to-analog)
Interface:	
Internal	high definition audio
External	microphone-in/stereo headphones/external speakers connector
Speakers	one
Internal speaker amplifier	2 W (typical) per channel
Volume controls	rocker

Video	
Video type	integrated on system board
Data bus	integrated video

Video	
Video controller	Intel HD Graphics 600
Video memory	766 MB

Communications	
Network adapter	one RJ-45 connector support via docking station
Wireless	• Wireless On/Off functionality • WWAN and Global Navigation Satellite Systems (GNSS) • Wi-Fi

Ports and Connectors	
Audio	one microphone connector/stereo headphone/speakers connector
Video	one 19-pin HDMI connector
USB	one 4-pin USB 2.0 compliant connector
Memory card reader	one 3-in-1 memory card reader

Display	
Type	WXGA IPS LED
Size	10.1 inches high definition (HD)
Dimensions:	
Height	135.60 mm (5.34 inches)
Width	216.96 mm (8.54 inches)
Diagonal	255.85 mm (10.07 inches)
Active area (X/Y)	216.96 mm / 135.60 mm
Maximum resolution	1280 x 800 pixels
Maximum brightness	340 nits
Refresh rate	60 Hz
Minimum viewing angles:	
Horizontal	+/- 80°
Vertical	+/- 80°
Pixel pitch	0.1695 mm x 0.1695 mm

Battery	
Type (30WHr)	4–cell lithium ion
Dimensions	

Battery	
Length	165.50 mm (6.56 inches)
Height	5.90 mm (0.23 inch)
Width	114.10 mm (4.49 inches)
Weight	200.00 g (0.44 lb)
Voltage	7.4 VDC
Temperature range	
Operating	0 °C to 60 °C (32° F to 140° F)
Non-Operating	–20 °C to 60 °C (–4 °F to 140 °F)
Coin-cell battery	3 V CR2032 lithium ion

AC Adapter	
Type	30 W
Input voltage	100 VAC to 240 VAC
Input current (maximum)	1.0 A
Input frequency	50 Hz to 60 Hz
Output power	30 W
Output current (30 W)	1.58 A
Rated output voltage	19 +/– 1.0 VDC
Temperature range:	
Operating	0 °C to 40 °C (32 °F to 104 °F)
Non-operating	–20 °C to 85 °C (–4 °F to 185 °F)

Physical	
Height	15 mm (0.59 inch)
Width	270 mm (10.63 inches)
Depth	186 mm (7.32 inches)
Weight (minimum)	816 g (1.80 lbs)

Environmental	
Temperature:	
Operating	0 °C to 35 °C (32 °F to 95 °F)
Storage	–40 °C to 65 °C (–40 °F to 149 °F)
Relative humidity (maximum):	
Operating	10 % to 90 % (noncondensing)

Environmental	
Storage	5 % to 95 % (noncondensing)
Altitude (maximum):	
Operating	–15.20 m to 3048 m (–50 ft to 10,000 ft)
Non-operating	–15.20 m to 10,668 m (–50 ft to 35,000 ft)
Airborne contaminant level	G1 as defined by ISA-71.04–1985

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Contacting Dell

NOTE: If you do not have an active Internet connection, you can find contact information on your purchase invoice, packing slip, bill, or Dell product catalog.

Dell provides several online and telephone-based support and service options. Availability varies by country and product, and some services may not be available in your area. To contact Dell for sales, technical support, or customer service issues:

1. Visit **support.dell.com**.
2. Select your support category.
3. If you are not a U.S. customer, select your country code at the bottom of the **support.dell.com** page, or select **All** to see more choices.
4. Select the appropriate service or support link based on your need.